

Response to comments on Biosolids Draft General Permit

Note: Some changes have been made to the format of the permit from the first draft permit. The numbering system has been changed from the use of the traditional listing of alternate numbers and letters (e.g., Part I.A.3.a.) to a decimal system (e.g., Part 1.1.3.1). This makes it easier to determine where you are in the permit and for the most part eliminated the use of “Continued on next page”. Except for the first page, the font size was generally changed from 12 point to 11 point. Starting with the second page, the page number and the permit number appear in a header. The part number (e.g., Part II, etc.) is not given in the top right corner of the page as it was in the first draft. The page numbers referred to below in the comments are the numbers from the draft that went to public notice in January 2001.

Notice of Intent (NOI)

1. Com.: Part II.B. (now Part 2.2). Two commenters expressed concerns about having to submit large quantities of data when there are numerous land application sites involved. This could involve several boxes of paper being submitted as part of the application. As an alternative it was suggested that instead of the applicant submitting all of the data, EPA would be allowed to examine the data at the facility. Another suggestion was the facility would not be required to submit the data if the data had already been submitted to the State to fulfill a State requirement.

Res.: EPA believes that the required data should be submitted, but recognizes that for some facilities it would be burdensome to have to submit all of the data in hard copy (i.e., on paper). The permit has been revised to allow for submittal of data by any one of the following three methods:

- Letter format;
- Combination of hard (printed) copy using EPA’s Biosolids Data Management System (BDMS) and in letter format. The letter format shall include the required information not included in the BDMS and the certification as given in Part 2.2.4 (The BDMS program may be downloaded from the internet at the Region 8 Biosolids Management Program’s WEB page. The URL for the BDMS is <http://www.epa.gov/region08/water/wastewater/biohome/bdms/bdms.html> or
- Combination of letter format and electronic format. The letter format portion of the submittal shall include the information required in Part 2.2.1, the required information that is not submitted in electronic format, a description of the electronic format used, a listing of the information included in electronic format, and the certification as given in Part 2.2.4. The information submitted in electronic format shall be in either BDMS, a *Lotus® 123* spreadsheet (version 9.6 or older), a *Microsoft® Excel* spreadsheet (version Office 2000 or older), or a *Microsoft® Access* database (version Office 2000 or older).

The electronic files must be on either CD-ROMs or 3 ½ inch floppy disks. The electronic files must be in the form that they can be opened by the aforementioned software programs and the data viewed and/or printed in those programs.

In response to the draft of this response to comments, one of the commenters mentioned that even with the above changes there would still be a great deal of data to submit and not all of the data is available electronically, such as soil tests and maps. Region 8 believes the data that is to be submitted with the NOI is appropriate. Soils data may be entered into BDMS and submitted electronically.

2. Com.: Part II.B.2.b. (now Part 2.2.2.2) (page 15). One commenter asked that since contract applicers and/or haulers are identified in the Notice of Intent, would a change in these contractors, after Notice of Intent submittal, require notice to EPA?

Res.: Changes in contract applicers and/or haulers that occur after the NOI is submitted can be updated in the annual report.

3. Com.: A commenter noted that some of the NOI requirements include reporting of average concentrations and that it is plausible that concentrations/densities for some of the specified parameters could be below the analytical detection limit. It was suggested that a procedure for incorporating “nondetect” values in the average concentration calculation is required and that the use of zero (0) and one (1) for nondetect values in arithmetic and geometric mean calculations, respectively, be allowed.

Res.: If the proper analytical procedures, including proper sample size, are used in the analysis of sewage sludge, the likelihood of having an analytical result below the analytical detection limit is very small. Part XII (now Part 12) of the permit, APPROVED METHODS FOR THE ANALYSIS OF SEWAGE SLUDGE (40 CFR Part 503), has been modified to include requirements on the minimum sample size to be used in the analyses for all metals except for mercury. If proper analytical procedures have been used in the analysis of sewage sludge, Region 8 does not object to the use of zero (0) and one (1) for nondetect values in arithmetic and geometric mean calculations, respectively.

4. Com.: Part II.B.2.c.(5) (now Part 2.2.2.3.5) (page 18). As part of the NOI requirements for land application sites the applicant is required to submit soils data for each land application site. The draft permit included an exemption from this requirement for small-scale landscaping sites on the wastewater treatment plant grounds less than 1 acre where less than 1 dry metric ton of sewage sludge had been applied. A commenter noted that it was not clear if this exemption applied if the wastewater treatment facility and sludge treatment facility are not collocated. Also, would the exemption apply for small-scale landscaping at the sludge treatment facility.

Res.: Wording has been added to include sludge treatment facility grounds if not collocated.

In addition, the size limitation has been changed from 1 acre to to a combined total of 5 acres and the sludge application has been changed from 1 dry metric ton to 1 dry metric ton per acre per year. The change from 1 acre to 5 acres was considered appropriate because many wastewater treatment plants and/or sludge treatment facilities have more than 1 acre of landscaping. The application of sewage sludge at the rate of 1 dry metric ton per year, if it meets the requirements for land application, should be environmentally insignificant and does not justify the soil monitoring. Note, in addition to the NOI requirements in Part 2.2.2.3.5, this also applies to the actual land application of sewage sludge in Parts 4.1.4.6 and 4.1.4.7.

5. Com.: Part II.B.2.e.(6) (now Part 2.2.2.5.6). A commenter mentioned that surface disposal operations that do not employ the use of cover should be specifically exempted from collecting and submitting methane gas data as part of the Notice of Intent process.

Res.: The NOI does not require the collection of methane gas data. It requires just the reporting of methane gas data that were collected during the previous 12 months or the previous calendar year. The wording was changed slightly to provide a clarification that “if” data were collected, then a summary of the data is to be provided.

6. Com.: Part II.B.2.c.(2) (now Part 2.2.2.3.2) and Part II.B.2.c.(4) (now Part 2.2.2.3.4). A commenter noted that these parts require a minimum of three samples at least one month apart not more than four and one-half years old, but this may not be met with new facilities.

Res.: The last sentence in those two sections states “New facilities/operations see **Note** following Table NOI-5.” The Note states “For Parts 2.2.2.3.2 and 4 above, new facilities/operations that do not yet have the required sewage sludge monitoring data shall submit the required data separately within six (6) months after the start of land application of sewage sludge. The data shall be based on a minimum of three (3) sampling events and the samples shall be collected in accordance with the requirements of Part 4.1.4. New operations that land apply sewage sludge, but do not treat it, are required to submit all of the required data with the NOI.” This should allow adequate time for a new facility to collect and submit the necessary information.

7. Com.: Note on page 17 following Table NOI-5. A commented mentioned that the note specifies a number of samples to be collected, but does not specify that the samples be representative. In addition, a minimum of three samples are required while according to 40 CFR 503, only 1 sample may be required.

Res.: The minimum monitoring frequency requirements given in 40 CFR 503 are for the minimum annual monitoring requirements, which vary with the annual quantities of sewage sludge involved. The minimum of three samples for the NOI is similar to the application requirements given in 40 CFR 122.21(q) and most existing facilities should have that amount of data if they have been meeting the requirements of 40 CFR 503. The Note

requires that the samples be collected in accordance with the requirements of Part 4.1.4, which requires that the samples or measurements be representative of the quantity and quality of the sewage sludge.

8. Com.: Part II.B.2.c.(5) (now Part 2.2.2.3.5). A commenter noted that it was not appropriate to include “total solids” in Table NOI-6 since soil is dried prior to testing, so the results are all reported on a dry weight basis.

Res.: For the analyses required in this permit, with the exception of total solids, the soil samples should be dried before doing the analyses. However, that is not always done and the Region has received analytical results based on the wet weight of the soil aliquots used for the analyses. By having the total solids as a percentage of the soil sample provides a means of checking data that seems questionable. It also may give an indication of some of the soil characteristics.

9. Com.: Part II.B.2.c.(5) (now Part 2.2.2.3.5). (This comment and response also apply to Parts IV.A.4.(e) & (f) (now Parts 4.1.4.5 & 6).) A commenter noted that for soil sampling the permit requires a minimum of six sub-samples per 320 acres are required for one soil sample while the State of Colorado’s regulations require 16 sub-samples per guidance from Colorado State University (CSU). The commenter recommended that the permit be changed to match the State’s requirements so that there is less confusion.

Res.: Region 8 considers six sub-samples per 320 acres as the minimum number of sub-samples to give a representative sample. Although 16 sub-samples per 320 acres should give a more representative sample, Region 8 wants to minimize the sampling requirements while still having a representative sample, and thus is only requiring 6 sub-samples per 320 acres. It is EPA’s understanding that the 16 sub-samples are per field, with a maximum size of the field not given. If the size of the field was 640 acres, the permit would require 2 samples consisting of 6 sub-samples each for a total of 12 sub-samples.

10. Com.: Part II.B.2.c.(5) (now Part 2.2.2.3.5) and Parts IV.A.4.(e) & (f) (now Parts 4.1.4.5 & 6.). One commenter expressed concern about the costs of having to do complete soils analyses for each land application site as part of the NOI and annual monitoring of soils for nitrates on those land application sites that are irrigated.

Res.: The NOI requirements for land application of sewage sludge include the requirements to provide soils data on metals, nitrates, and phosphorus for each land application site. The permit allows the use of data up to 4 and ½ years old, so it may not always be necessary to collect new data. The data on metals are considered important because some soils have naturally occurring high concentrations of one or more of the metals regulated under 40 CFR Part 503. If the concentration(s) of any metal(s) in the soils already exceeds the limit(s) given in 40 CFR Part 503, normally additional metals should not be added via the sewage sludge. There may be exceptions, such as the reclamation of old mining sites, but

this needs to be addressed on a case-by-case basis.

The soils data on nitrates and phosphorus as part of the NOI are important because of the need to prevent adding excessive nutrients to the soil. The soil monitoring requirements for nitrates (Part 4.1.4.6) as part of the self-monitoring requirements have been modified so that monitoring is required only once per five years, even for irrigated sites. The permittee may need to do additional monitoring for determining agronomic rates for application of sewage sludge, but the permittee needs to determine this on a case-by-case basis. The soil monitoring requirements for phosphorus have been changed from “total phosphorus” to “available phosphorus”. The permit specifies the methods of analysis for available phosphorus, depending on the pH of the soil.

11. Com.: Part II.B.2.c.(5) (now Part 2.2.2.3.5), page 18, and Part IV.A.4.f. (now Part 4.1.4.6), page 38. Several commenters questioned the need to require deep soil sampling (i.e., 5 feet) for nitrates as part of the NOI requirements and also as part of the monitoring requirements for land application. They felt for most situations, especially dry land farming, that one-foot samples are adequate. It was pointed out that experience has shown that when sewage sludge is applied at agronomic rates, nitrates do not percolate below the top one foot of soil in significant quantities. It was also pointed out that deep soil sampling in rocky soils generally is difficult.

Res.: The commenters have raised some valid issues. Studies conducted by Colorado State University have shown that when biosolids are applied at agronomic rates to dryland wheat farms in eastern Colorado there is not a migration of nitrates in significant concentrations below the root zone. The average annual precipitation in that area is 18 inches or less. Soil monitoring results submitted to EPA Region 8 as part of annual reports indicate the same. Since the primary purpose of the soil monitoring data in the NOI is to determine the concentrations on nitrates and phosphorus in the root zone, deep soil monitoring is not necessary. Accordingly, the deep soil monitoring requirements for nitrates have been deleted from the NOI requirements (Part II.B.2.c.(5) (now Part 2.2.2.3.5)) and have been modified for the monitoring requirements for land application (Part IV.A.4.f. (now part 4.1.4.6)). As part of the routine self-monitoring requirements, deep soil monitoring for nitrates will be required only in Part 4.1.4.6 at land application sites where there are two or more applications of sewage sludge within a five year period and where the land is irrigated or the average annual precipitation is equal to or great than 18 inches/year. Under these conditions there appears to be a potential for nitrates to migrate below the root zone in significant concentrations.

12. Com.: Part II.B.3. (now Part 2.2.3). A commenter mentioned that for Category 3 (wastewater lagoon systems that need to land apply sewage sludge on an occasional, restricted basis) the NOI requirement that biosolids samples be collected no more than 63 days prior to the start of land application of the biosolids was impractical, especially in the State of Colorado. It was pointed out that biosolids quality changes very little in a lagoon

over time, especially if a representative sample is initially collected. In addition, it takes about 6 months to obtain a permit from the Colorado Department of Public Health & Environment. In Colorado a state issued permit is required in addition to coverage under EPA's general permit. The commenter also mentioned that it takes time to find land for disposal of the sewage sludge and get a sample tested. The commenter recommended the application must be based on data that is not more than one year old.

Res.: EPA agrees that the permittee may encounter uncontrolled delays if additional approval (e.g., a permit) must be obtained from another agency. To allow for such delays, the wording in the permit has been changed so that the samples must be collected no more than 63 days (9 weeks) prior to the submittal of the NOI instead of no more than 63 days prior to the start of land application of the sewage sludge. The permit does not specify that the land application of the sewage sludge must start within a specified time after coverage under the permit begins. This allows the permittee time to obtain necessary approval from the State, etc., as necessary.

13. Com.: Part II.B.3.a (now Part 2.2.3.1), Part II.B.3.b. (now Part 2.2.3.2), Part II.B.3.e.(1) (now Part 2.2.3.5.1), and Part IV.A.4.b. (now 4.1.4.2). The same commenter mentioned that these sections require that at least one sample be analyzed per biosolids body and the number of sub-samples per sample is based on flow instead of the amount of biosolids produced as specified in 40 CFR Part 503.. The commenter felt that this was confusing and ambiguous. The commenter recommended that if there is a concern that some applicants might not submit representative samples, then the permit should require submittal of a sampling plan detailing how a representative sample will be obtained rather than simply requiring an over-sampling to force better sampling on a few generators that do not provide representative samples.

Res.: In the draft general permit the NOI sampling requirements for lagoon systems that would be covered under Category 3 was based on Section 2.4 of the 1999 version of the EPA Region VIII Biosolids Management Handbook. The requirement to collect random samples has been deleted and replaced with the requirement that the samples be representative. This was also done in other parts of the permit where there was the requirement to collect random samples. This applies to both sampling from sludge bodies and to soil sampling. Reference to Section 2.4 of the 1999 version of the EPA Region VIII Biosolids Management Handbook is given as an example of a method of collecting representative samples using randomly collected samples. The number of samples to be collected for metals and total solids analyses are given below in Table NOI-9. The design average flow of the lagoon system is used to determine the number of samples required, with more samples required for the larger systems. The number of samples to be collected and analyzed for fecal coliforms and total solids is given in Table NOI-10 below.

TABLE NOI-9
NUMBER OF SAMPLES FOR METALS AND TOTAL SOLIDS MONITORING

Design Average Flow, MGD	Minimum Number of Discrete Representative Samples to Be Collected	Number of Composite Samples for Each Lagoon Cell and Other Sewage Sludge Body
Flow \leq 1	27 <u>a/</u>	<u>a/</u>
1 < Flow \leq 10	42 <u>b/</u>	1 <u>b/</u>
Flow > 10	48 <u>b/</u>	1 <u>b/</u>

- a/ An equal number of discrete samples shall be collected from each lagoon cell and other sewage sludge body from which sewage sludge will be land applied. A minimum of 27 discrete samples shall be collected for the entire wastewater lagoon system. If necessary, the total number of discrete samples shall be increased so that an equal number of discrete samples are collected from each lagoon cell and other sewage sludge body from which sewage sludge is to be land applied (e.g., if 2 lagoon cells are to be sampled, 14 discrete samples shall be collected from each cell for a total of 28 discrete samples.) All of the discrete samples shall be composited into one composite sample for analysis.
- b/ The minimum number of discrete samples that shall be collected from each lagoon cell and other sewage sludge body from which sewage sludge will be land applied. For each lagoon cell or other sludge body all of the discrete samples shall be composited into one composite sample for analysis.

TABLE NOI-10
NUMBER OF SAMPLES FOR FECAL COLIFORMS AND TOTAL SOLIDS

Design Average Flow, MGD	Number of Discrete Representative Samples to Be Collected (N)
Flow \leq 1	7 <u>a/</u>
1 < Flow	7 <u>b/</u>

- a/ The minimum number of discrete samples to be collected from the wastewater lagoon system is 7. However, an equal number of discrete samples shall be collected from each lagoon cell and other sewage sludge body from which sewage sludge will be land applied. Therefore, if necessary, the total number of discrete samples shall be increased so that an equal number of discrete samples are collected from each lagoon cell and other sewage sludge body from which sewage sludge is to be land applied (e.g., if 2 lagoon cells are to be sampled, 4 discrete samples are to be collected from each cell for a total of 8 discrete samples). Each discrete sample shall be analyzed separately for fecal coliforms and total solids.
- b/ The minimum number of discrete samples to be collected from each lagoon cell and other sewage sludge body from which sewage sludge will be land applied is 7. Each discrete sample shall be analyzed separately for fecal coliforms and total solids.

Land Application

14. Com.: One commenter wondered how the permit applied to its operations since it composted sewage sludge only for sale and did not produce any sewage sludge nor land apply any of the composted sewage sludge.

Res.: The land application portion (Subpart B) of 40 CFR Part 503 pertains to operations that sell sewage sludge or material derived from sewage sludge. Accordingly, that operation would need to apply for permit coverage under Subcategory 2.a.

15. Com.: Part IV.A.4 (now Part 4.1.4) page 36. A commenter mentioned that in the first paragraph of this part the meaning of “long term treatment” was not clear.

Res.: The sentences about long-term treatment have been moved to Part 4.1.4.2, pathogen monitoring requirements, and a reference to the 1999 version of the EPA Region VIII Biosolids Management Handbook has been added for clarification purposes.

16. Com.: Part IV.A.4.e. (now Part 4.1.4.5) page 37. One commenter was under the impression that this section requires for the submittal of a sampling plan, with the potential for numerous submittals back and forth. The commenter felt that it should be sufficient to require representative sampling and to submit a description of how the samples were collected.

Res.: The requirement to submit a sampling plan applies only if the sampling for self-monitoring purposes is to be done from sewage sludge bodies. This gives the permit issuing authority the opportunity to review sampling procedures without having to contact the permittee and/or making an on-site inspection. The permittee does not have to wait for approval before implementing the sampling plan. If the permit issuing authority finds something unacceptable, the permittee may be notified about necessary changes.

For purposes of clarification, the requirement to submit a sampling plan has been moved from Part 4.1.4.5 to 4.1.4 as a second paragraph.

17. Com.: Part IV.A.4.(f) (now Part 4.1.4.6). A commenter expressed concerns about doing deep soil monitoring for nitrates and had the following questions: (a) We are not aware of any soil boring or core sampler that is designed to go this deep. (b) How do you avoid cross-contamination from the upper soil layers? (c) How do you take a core sample from rock laden soils? and (d) What is the definition of a confining layer? Does dense clay constitute a confining layer or only bedrock?

Res.: (a) There are a variety of soil samplers available, ranging from hand-held to truck mounted. The local office of the Dept. of Agriculture’s Natural Resource Conservation Service probably could provide information about the type of samplers that work best in specific areas and may have information on suppliers of samplers. Another source of

information is the extension service of the State Land Grant College or University. (b) Some samplers may take samples in only one foot increments and other samplers may take a continuous sample. For the one foot samples the top and bottom layers of the sample could be scraped off and the rest of the sample used for taking the aliquot to be used in making the composite sample for that depth. For a continuous sample, the aliquot can be extracted from the appropriate depth of the sample. (c) In very rocky soils it may be necessary to use something like a backhoe to dig a hole so that soil samples can be taken at the various depths. (d) A confining layer would be considered an impermeable or distinctly less permeable layer underlying the surface soils. A layer of dense clay could be considered a confining layer.

18. Com.: Part IV.A.4.(f) (now Part 4.1.4.6). Another commenter mentioned that it was not clear if the same frequency of monitoring was required for deep (i.e., 5 feet) soil monitoring and 1 foot soil monitoring and requested that separate paragraphs for the 1-foot sampling requirements and 5-foot sampling requirements be included in the final permit.

Res.: Part 4.1.4.6 has been rewritten and should be easier to understand. However, separate paragraphs were not used for the 1-foot and 5-foot soil sampling requirements.

19. Com.: Part IV.A.4.g. (now Part 4.1.4.7), page 37. A commenter noted that the way this section is written requires 6 individual phosphorus tests per 320 acres instead of one per 320 as part of the normal soil testing program.

Res.: Part 4.1.4.7 requires 6 discrete one-foot samples be collected and composited. For purposes of clarification the sentence has been changed to read "Six samples of one foot depth each are to be collected for each 320 acre area and composited into one sample.", with the last three words being added.

20. Com.: Part IV.B.1. (now Part 4.2.1), page 41. One commenter wondered why the submittal of a sludge Management Plan was required and suggested that a one page summary of the program be added to all of the data submitted with the NOI.

Res.: Part 4.2.1 requires the submittal of a land application plan. At a minimum, the plan is to include the components listed in section 2.5 of the 1999 version of the Region VIII Biosolids Management Handbook. Although some of the components of the plan would be included in the NOI, the plan is to be more extensive and requires the permittee to plan ahead over a five year period.

21. Com.: Part IV.B.7. (now Part 4.2.7.). This part requires that sewage sludge not be land applied to a site when the concentration of available phosphorus exceeds a specified value, which depends on the soil pH and the extraction procedure used. A commenter noted that this requirement probably would be acceptable provided that available phosphorus was used and not total phosphorus.

Res.: In reviewing the permit it was noted that where soil sampling for phosphorus was required, total phosphorus was specified. The soil monitoring requirements in Table NOI-6 (in Part 2.2.2.3.5), Part 2.2.3.5.2, and Part 4.1.4.7 have been changed to specify available phosphorus. The monitoring of sewage sludge for phosphorus will still be for total phosphorus.

22. Com.: Part IV.B.2 (now Part 4.2.2), page 41. A commenter mentioned that the requirement to submit information on ground water classification should be part of the application procedure for land application sites. The commenter also asked who was to determine the groundwater classification.

Res.: Part 4.2.2 has been revised to limit the submittal of information to those land application sites that were not considered to be a “new site” at the time the NOI was submitted and to require the submittal of additional information. The permittee is required within one year after authorization under the permit to provide the following information to the permit issuing authority:

- (a) the classification of the ground water under the site;
- (b) a determination if the annual high ground water level at any point under the land application site is likely to be within five feet of the ground surface; and
- (c) If the determination required in (b) shows that the annual high ground water level at any point under the land application site is likely to be within five feet of the ground surface, the permittee must submit a plan for the application of sewage sludge to be conducted in a manner that will not contaminate the ground water or impair the use classification for that water underlying the site.

The same information must be provided for new land application sites, but that must be done during the application process. A new Part 2.2.2.3.6 has been added to the NOI requirements for Subcategory 2.a., Land Application of Sewage Sludge.

Information on applicable classification of ground waters should be available from the applicable State agency (or applicable Tribe). It is the permittee’s responsibility to obtain the information.

23. Com.: Part IV.B.9. (now Part 4.2.9), page 42. A commenter felt that the requirement that the specified cover crop “shall” be planted was too strong of wording and “cover” is not the correct term. It should simply state a crop should be planted. The sewage sludge is usually land applied on farm land and the applicator does not have control over the farmer’s cropping practices. If the nitrogen is not being removed the soil testing for agronomic application rates will take this into account and adjust it accordingly for the next application. If no crop is grown there may be reason to require deep soil monitoring for nitrate.

Res.: The wording of Part 4.2.9 has been changed to the following:

“ If the planned crop is not grown or there is significant crop failure (e.g., significant hail damage) in the next available growing season after the application of sewage sludge, the annual report shall include the following information for that site:

Crop grown;
Nitrogen requirements for crop grown;
Amount of nitrogen applied in sewage sludge; and
Results of agronomic rate calculations based on crop actually grown.

Deep soil monitoring for nitrates may be required under the discretion of the permit issuing authority.”

24. Com.: Part IV.B.15 (now Part 4.2.15), page 43. One commenter said that the requirements of this part are nice in theory, but sometimes is difficult to implement due to the difficulty in finding records about past applications of sewage sludge. It was suggested that in cases when the data is not available that some assumptions be used to provide a reasonable value. It could be assumed that the maximum levels of metals (Table 1) have been applied at a normally accepted rate (2 DT/Ac for dry land and 5 Dt for irrigated crops) and then these levels of total metals be subtracted from the maximum allowed in order to provide values of the remaining amounts of metals that can be applied.

Res.: Most of the requirements in Part 4.2.15 are based on requirements of 40 CFR 503 (See 40 CFR 503.12(e)(1) and (2)) and accordingly must remain in the permit as written. This part only applies if a permittee wants to land apply sewage sludge where one or more of the limitations in Table 3 of Part 4.1.1.5 are exceeded. Region 8 believes that the permit issuing authority should have the flexibility of determining the best method of dealing with the situation on a case-by-case basis within the provisions of the permit and the requirements of 40 CFR 503.

25. Com.: Part IV.C. (now Part 4.3). A commenter raised concerns about the two year limitation on temporary storage of sewage sludge. An example was given of sewage sludge storage basins.

Res.: The following definitions are given in 40 CFR Part 503.9:

“*Store or storage of sewage sludge* is the placement of sewage sludge on land on which the sewage sludge remains for two years or less. This does not include the placement of sewage sludge on land for treatment.”

“*Treat or treatment of sewage sludge* is the preparation of sewage sludge for final use or disposal. This includes, but is not limited to, thickening, stabilization, and

dewatering of sewage sludge. This does not include storage of sewage sludge.” If sewage sludge is placed in storage lagoons for a period of more than two years, those storage lagoons are considered as an active sewage sludge units unless it can be demonstrated that significant treatment of the sewage sludge is occurring. If the occurrence of significant treatment cannot be demonstrated, the sewage lagoons must meet the requirements of Subpart C, Surface Disposal, of 40 CFR 503 and must be covered under Subcategory 2.c. of the general permit. The issue of being considered surface disposal can be avoided by completely emptying a sewage sludge storage lagoon within two years after sewage sludge has been placed in the lagoon.

Note: The title of Part IV.C. of the general permit was incorrect. It read “Special Conditions on Sewage Sludge Storage for Limited Land Application”, but should be “Special Conditions on Sewage Sludge Storage for Land Application”. That correction has been made. In addition, a similar requirement has been added (at Part 6.3.4) for surface disposal of sewage sludge. It should have been included in the draft permit.

Landfilling

26. Com.: Two commenters questioned EPA’s authority to regulate the land filling of sewage sludge at municipal solid waste landfills (MSWLF) under a Clean Water Act (CWA) permit since MSWLFs are regulated under 40 CFR Part 258. One commenter recommended that the permit not provide coverage for facilities that dispose of sewage sludge in an approved MSWLF in accordance with the requirements of 40 CFR Part 258. In addition that commenter recommended several deletions or changes to portions of the permit that pertained to the landfilling of sewage sludge.

Res.: In 40 CFR § 503.4 it states, “Any person who prepares sewage sludge that is disposed in a municipal solid waste landfill unit shall ensure that the sewage sludge meets the requirements in 40 CFR Part 258 concerning the quality of materials disposed in a municipal solid waste landfill unit.” The authority for 40 CFR Part 258 includes both the CWA and the Solid Waste Disposal Act (SWDA). The intent of the landfill requirements in the general permit is to require the permittee to meet the applicable requirements of 40 CFR Part 258 when disposing of sewage sludge at a landfill and not depend on the operator of the landfill to insure that the sewage sludge meets the requirements. The landfill requirements will remain in the permit, but will be modified slightly as explained in the next two responses to comments.

27. Com.: The draft general permit does not contain a definition of “landfill” to apprise prospective permittees when the landfill requirements apply.

Res.: Region 8 has decided to revise the permit requirements so as to limit the landfilling of sewage sludge at MSWLFs as defined at 40 CFR Part 258.2 and that are in compliance with the requirements of 40 CFR Part 258. The definition of MSWLF unit has been added to the

permit.

28. Com.: One commenter recommended that wording be added to the permit to the effect that sewage sludge used at solid waste landfills for cover material must comply with land application requirements.

Res.: Region 8 believes that sewage sludge used for “daily cover” at a landfill must meet the requirements specified in Part V.A.1. (now Part 5.1.1) of the permit (i.e., meet the applicable vector attraction reduction limitations, not exhibit the characteristics of a hazardous waste, and not contain any free water), but does not have to meet the additional requirements for land application given in Part IV (now Part 4) of the permit.

However, sewage sludge that is used in the final cover of the landfill must meet the applicable chemical pollutant limitations for land application, pathogen requirements and applicable site restrictions, and the applicable vector attraction reduction limitations given in Parts IV.A.1., 2., and 3. (now Parts 4.1.1, 2, and 3) of the permit. A note to that effect will be added to the permit.

29. Com.: One commenter expressed concern that the wording of Part 5.1.1.2, Vector Attraction Reduction Limitations, of the permit does not provide for the disposal of sewage sludge at a landfill if the sewage sludge does not meet the vector attraction reduction requirements by means of treatment (e.g., inadequately digested sewage sludge). The commenter recommended that the following wording be added to the beginning of the first paragraph of Part 5.1.1.2:

“If the permittee has reason to believe that the municipal solid waste landfill owner or operator may not be in compliance with the daily cover requirements of 40 CFR Part 258.21, the permittee shall notify EPA Region 8 and the appropriate state health department of its concerns. In such a case, the” sewage sludge

Res.: If the sewage sludge placed in a landfill is covered with soil or other materials at the end of each operating day, then the vector attraction reduction requirements of Part 5.1.1.2 of the permit are met. (See Part 5.1.1.2.8). If the permittee suspects that the daily cover requirements of 40 CFR Part 258.21 are not being met at the landfill and the sewage sludge being taken to the landfill does not meet one of the vector attraction reduction requirements of Part 5.1.1.2 through treatment, then the permittee is obligated to immediately stop taking the sewage sludge to that landfill until the problem is corrected. If the sewage sludge to be disposed of at a landfill cannot meet one of the vector attraction reduction requirements through treatment, the sewage sludge must be covered with soil or other material at the end of each operating day. If the sewage sludge meets the vector attraction reduction requirements through treatment, the sewage sludge can be used for daily cover.

The wording in the permit will not be changed as requested.

30. Com.: A commenter recommended various wording changes to the portion of the notice of intent (NOI), Part II.B.2.d. (now Part 2.2.2.4), that pertains to the landfilling of sewage sludge. The recommended changes were tied into a earlier comment about EPA not having the authority to regulate the landfilling of sewage sludge.

Res.: Since the coverage of the landfilling of sewage sludge will remain in the permit, EPA believes the NOI requirements, as proposed in the draft permit, are appropriate and the recommended changes will not be made.

Lagoons

31. Com.: Part VII.A.3.c (now Part 7.1.3.3), page 65. A commenter agreed with the concept of vector attraction reduction (VAR) equivalency, but wondered if it was legal under 40 CFR 503 or the State's regulations because this may cause great confusion.

Res.: The commenter is correct. Part 7.1.3.3 has been changed to the pH adjustment as given in 40 CFR 503.33(b)(6). This is considered the only other practical alternative for small wastewater lagoon systems to meet the VAR requirements as given in 40 CFR 503.

32. Com.: Part VII.D.3. (now Part 7.4.3). A commenter felt that the requirement to retain records of "all" calibration records is too extensive because recalibration is a continuous activity. This needs to be modified to state that inclusion of a calibration program and procedures.

Res.: The requirement to retain all calibration records for a minimum of five years is based on 40 CFR Part 122.41(j)(2) and will not be changed. The calibration records that must be retained are those associated with monitoring that is conducted as part of the permit requirements.

Surface Disposal

33. Com.: Part VI.A.2. (now Part 6.1.2), page 53. A commenter requested that the pathogen requirements be modified to include "injection below the surface of the land." as given in Part VI.A.3.g (now Part 6.1.3.7) under Vector Attraction Reduction Limitations.

Res.: The sewage sludge regulations at 40 CFR 503.25(a) do not include injection as a method of meeting the pathogen requirements for surface disposal. If the sewage sludge does not meet the pathogen requirements for Class B, the sewage sludge must be covered by soil or other material at the end of the day. Injection or incorporation of the sewage sludge into the soil is not acceptable for meeting the pathogen requirements for surface disposal.

34. Com.: Part VI.A.4.f. (now 6.1.4.6), page 57. A commenter said that the requirement for submittal and EPA approval of a methane gas monitoring plan if a cover is placed on an

active sewage sludge unit is not authorized under 40 CFR 503 and should be removed from the permit. If the requirement remains in the permit, the basis for requiring methane monitoring in soil at the property line rather than air should be stated. The comment on soil monitoring also applies to Part VI.C.2. (now Part 6.3.2).

Res.: The methane monitoring requirements will remain in the permit. The monitoring of methane in the soil at the property line of surface disposal sites is required because there have been documented cases of methane gas migrating via the soil significant distances from sources such as landfills. Surface disposal sites, like landfills, can be sources of significant concentrations of methane gas.

35. Com.: Part VI.A.4.h. (now Part 6.1.4.8), page 58. A commenter mentioned that digestion method 3050 in SW-486 has reportedly been superseded by other methods and requested that methods 3050B and 3052 in SW-846 be authorized.

Res.: Part 6.1.4.8 has been changed so that SW-3050B is the specified methods. Also, reference was given to footnote b (b/) of Part 12. Footnote b provides for the use of Methods 3051 and 3052 with approval of the permit issuing authority.

36. Com.: Part VI.A.4.i. (now Part 6.1.4.9), page 58. One commenter recommended that existing facilities that have greater than two years of monitoring at the specified in the general permit be allowed to request a reduction in the sampling frequency concurrent with general permit issuance.

Res.: If the permittee had been monitoring at the specified frequency prior to when coverage under the general permit begins, the permittee may consider that time as part of the two year requirement necessary before making the request for a reduced frequency of monitoring. Parts 4.1.4.10 and 6.1.4.9 of the permit have been changed to read "After two years of monitoring at the frequency specified (this may include monitoring done prior to coverage under this permit), the permittee may request..." The words in parentheses were added. The NOI requirements for coverage under the general permit will not be modified to include a request for reduced monitoring frequency. That request will have to be made separately from the NOI.

37. Com.: Part VID.3. (now Part 6.4.3), page 62. A commenter requested that specific authorization of on-site access to electronic data as an alternative to maintaining extensive paper records on-site.

Res.: The requirement to maintain certain records on-site has been deleted from the permit as it was considered to be impractical. The records must be kept reasonably available, but they do not have to be on-site. The records may be kept in electronic format provided that the necessary documentation can be determined as required for records kept in hard copy (e.g., who did the work, when, etc.)

General

38. Com.: A commenter stated that the authorization under the general permit should apply only to the use and disposal of sewage sludge and that the appropriate changes be made to the permit.

Res.: The comment is appropriate because it is not necessary to have permit authorization just to generate and/or partially treat sewage sludge. Because the requirements of 40 CFR Part 503 are self-implementing, it could be argued that authorization is not needed even to use/dispose of sewage sludge as long as the requirements of 40 CFR 503 are met. However, §503.3 provides that the requirements of Part 503 may be implemented through a permit and Region 8 has chosen to do so. EPA is also authorized to impose requirements beyond those included in Part 503, as allowed by 40 CFR §503.5(a).

The wording on the cover page of the permit has been changed so that authorization is limited to the “use/disposal of sewage sludge by means of land application, landfill, and surface disposal,” in accordance with the requirements of the permit. It should be noted that this change does not prevent those facilities that just generate and/or partially treat sewage sludge from applying for permit coverage under Category 1. Region 8 still wants those facilities to apply for permit coverage so that the Region will be kept informed as to what is happening to their sewage sludge. In addition to the changes on the title page, throughout the permit “authorization” and “authorized” were changed to “coverage” and “covered,” respectively, as appropriate.

39. Com.: Part I.F.1. (now Part 1.6.1) Requiring An Individual Permit Or An Alternative General Permit, page 7. A commenter recommended

- a. that the criteria for requiring an individual permit, or at least a reference to 40 CFR Part 122.28(b)(3)(i), should be included in this section;
- b. deleting or providing a legal basis for the statement in this section that the general permit is automatically terminated if an individual permit is denied, there being no such termination provision in of 40 CFR Part 122.28(b)(3); and
- c. deleting or providing a legal basis for the last sentence in Section 1.6.1 (formerly Section I.F.1) of the draft permit, because, according to the commenter, recognizing that permits may be terminated only in accordance with 40 CFR Part 124.

If a discharger fails to submit in a timely manner an individual NPDES permit application as required by the Director under this paragraph, then the applicability of this permit to the individual NPDES permittee is automatically terminated at the end of the day specified by the Director for application submittal.

Res.: a. EPA has inserted the following sentence as a new second sentence in Part 1.6.1 (formerly Part I.F.1.): “Cases where an individual permit may be required include those listed at 40 CFR Part 122.28(b)(3)(i).”

b. This comment pertains to the reference in former Section I.F.1 to the Director’s notice that an individual discharger is required to apply for an individual NPDES permit, which, according to 40 CFR Section 122.28(b)(3)(ii), is to include a statement that upon the effective date of an individual permit, the general permit as it applies to the individual permittee shall automatically terminate. In order to reflect the wording of this regulation more literally, EPA has deleted the phrase “or denial” from the sentence in former Section I.F.1 that stated, “This notification shall include a . . . statement that on the effective date of issuance or denial of the individual permit . . . coverage under this general permit shall automatically terminate.”

c. This sentence will be deleted, as requested by the commenter.

40. Com.: Part VIII.A. (now Part 8.1). Representative Sampling (page 69) A commenter recommended that the language of the “conditions applicable to all permits” regulation (40 CFR § 122.41(j)(1)) be used rather than the language in the draft permit. The wording in 40 CFR § 122.41(j)(1) states “Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity”

Res.: The draft permit stated, “Sewage sludge samples used to measure compliance with Parts III, IV, V, VI, and VII (now Parts 3, 4, 5, 6 and 7) of this Permit shall be collected at locations representative of the quality of sewage sludge generated and/or treated at the operation covered by this permit and immediately prior to use/disposal.” Most of the wording will remain the same because it is somewhat similar to the language used in 40 CFR Part 503.8(a), which is more appropriate than 40 CFR 122.41(j)(1). The last part of the sentence, “and immediately prior to use/disposal.”, has been deleted and following wording has been added to footnote b (b/) of Part IV.A.2.a. (now Part 4.1.2.1): “Samples are to be collected at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land; or at the time the sewage sludge or material derived from sewage sludge is prepared to meet the requirements in 40 CFR Sec. 503.10 (b), (c), (e), or (f).” This is essentially the language used in 40 CFR 503.32(a)(3), (4), (5), (6), (7), and (8).

41. Com.: Part VIII.D (now Part 8.4), page 69, also Part III.B. (now Part 3.2). A commenter, noting that this Part indicates that the annual report is to be submitted in writing and not in BDMS, asked “What is the point of the BDMS program then?”.

Res.: Region 8 would like to be able to receive sludge monitoring reports in electronic format, but the Agency has not yet made the necessary regulatory changes for such things as certification and signature requirements. Once those changes are made, the appropriate

changes for submitting reports can be made in the permit without going to public notice. The Biosolids Data Management System (BDMS) program is still useful. As explained in Part 8.4 of the permit, BDMS can be used to prepare printed copies of data. It also provides a standard format for handling biosolids data.

The following wording changes have been made to the second paragraph of Part 8.4:

- a. The sentence “Until further notice the permittee may select the report format provided that it is understandable and is on letter size (8.5" x 11") paper.” was changed to read “Unless otherwise approved by the permit issuing authority, the permittee shall submit the report on letter size (8.5" x 11") paper.”
 - b. The URL for downloading a copy of the BDMS program was updated to the following: <http://www.epa.gov/region08/water/wastewater/biohome/biohome.html> The URL given in the draft permit currently is not active, so the change was necessary.
42. Com.: Part VIII.F (now Part 8.6). Twenty-four Hour Notice of Noncompliance Reporting (page 70). Two commenters raised issues and concerns about the requirements of this part. They included the following:

The twenty-four hour reporting should be limited to information included in the “conditions applicable to all permits” regulation (40 CFR § 122.41(l)(6)(ii)), which is:

- (A) Any unanticipated bypass which exceeds any effluent limitation in the permit.
- (B) Any upset which exceeds any effluent limitation in the permit.
- (C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours.

If EPA is relying on 40 CFR § 122.41(l)(6)(i), which requires 24-hour reporting of “any noncompliance which may endanger health or the environment,” then please provide the basis for the belief that violations of non-daily maximum pollutant limitations or management practices automatically would endanger public health and the environment in such a way as to necessitate 24-hour reporting.

This Part requires 24-hour notification for any violation of the Class A pathogen requirements. As worded, if one of the seven fecal coliform samples exceeds the 1000 mpn/g limitation, then 24-hour notification is necessary. The commenter felt that this would not be a “non-compliance which may endanger public health or the environment” and requested clarification in the final permit language.

A commenter requested that the wording of the 24-hour reporting requirements involving upsets be changed to reflect the actual language of 40 CFR 122.41 (l)(6)(ii) as follows: “any upset which exceeds any effluent limitation.

Res.: EPA agrees that the reporting requirements in Part VIII.F (now Part 8.6) of the draft permit were overly broad and should be reduced to those situations that are appropriate. The following changes have been made:

- a. In Part VIII.F.1 (now Part 8.6.1), the first sentence has been changed to read “The permittee shall report any transportation accidents, spills, and uncontrolled runoff from sewage sludge transfer sites, storage sites, or land application sites, etc., which may”
- b. In Part VIII.F.2. (now Part 8.6.2) the wording has been changed to the following:

“8.6.2 The following shall be reported within 24 hours by telephone to the EPA, Region VIII, Technical Enforcement Program at (303) 312-6720 (8:00 a.m. - 4:30 p.m. Mountain Time) and the State of _____ at (____) ____ - ____ (or refer to list of applicable Tribes) (8:00 a.m. - 4:30 p.m. local time) by the first workday following the day the permittee became aware of the circumstances.:

8.6.2.1 Any violation of a maximum pollutant limitation for any of the chemicals listed in Table 1 of Part 4.1.1.5 for sewage sludge that has been distributed or land applied;

8.6.2.2 Any violation of the Class A pathogen requirements in Part 4.1.2.1 for sewage sludge that has been distributed or land applied such that there is a reasonable risk of public exposure to the sewage sludge;

8.6.2.3 Any violation of the limitations on arsenic, chromium, and nickel in Part 6.1.1.2 for sewage sludge that has been disposed of in a surface disposal site.”

The limitations identified above are risk based and are maximum limitations not to be exceeded at any time. EPA believes that any time those limitations are exceeded, it should be reported promptly. The sewage sludge must have been distributed, land applied, or disposed of, whichever is applicable, before it is necessary to report under the 24-hour reporting requirements. This takes into consideration potential risk to public health and the environment.

- c. The requirement to report “any upset which exceeds any limitation in the permit” has been deleted from the permit. The definition of upset at 40 CFR 122.41(n)(1) is based on an exceptional and temporary non-compliance with technology based effluent limitations. Since the permit does not contain any effluent limitations, it is not appropriate to require the reporting of upsets as defined in the regulations.
- d. Part VIII.F.4. (now Part 8.6.4), which provided for a waiver of the written report

requirements, has been deleted because Region 8 wants a written report on all incidents that were reported under the 24-hour reporting requirements.

43. Com.: Part VIII.H. (now Part 8.8) Inspection and Entry (page 71). A commenter stated that the general permit may not be used to grant States without delegated biosolids permitting programs, authority to enter and inspect for compliance with an EPA-issued permit and said the reference to the State should be deleted.

Res.: With the exception of EPA permits issued for Indian Country, EPA-issued permits generally have included the State as a party with the right of entry and inspection. Non-delegated states have often conducted inspections for EPA and/or with EPA as part of cooperative agreements with the states. For purposes of these inspections, the states are considered as authorized representatives of the Regional Administrator. No change will be made.

44. Com.: Part VIII.H. (now Part 8.8) Inspection and Entry (page 71). The same commenter said that inspections must be limited to facilities, equipment, practices or operations that are regulated or required under the permit (40 CFR § 122.41(i)(3)) and requested that the wording “including, but not limited to, sewage sludge treatment, collection, storage facilities or area, transport vehicles and containers, and land application sites” be deleted from the permit.

Res.: The subject wording was included in the permit for the purpose of giving examples of sewage sludge related facilities or activities that may be inspected. Region 8 believes that the permit should do more than just quote applicable regulations in order to make the permit easier to understand. Accordingly, the requested change will not be made.

45. Com.: Part IX.A. (now Part 9.1) Duty to Comply. A commenter pointed out that the last sentence, “The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.”, also appears in Part X.B. (now Part 10.2), which is the proper location.

Res.: The sentence has been deleted from Part IX.A. (now Part 9.1)

46. Com.: Part IX.D. (now Part 9.4) Duty to Mitigate (p73). A commenter requested the wording of this part be completed so as to be the same as 40 CFR § 122.41(d).

Res.: This part was changed to read the same as 40 CFR 122.41(d).

47. Com.: Part IX.E. (now Part 9.5) Proper Operation and Maintenance (page 73). A commenter requested that the last sentence be deleted as it goes beyond the language of the applicable regulation, 40 CFR § 122.41(e).

Res.: The last sentence reads, “However, the permittee shall operate, as a minimum, one complete set of each main line unit treatment process whether or not this process is needed to achieve permit effluent compliance.” The purpose of this sentence is to point out that the permittee is required to operate at least one of each treatment process unit that is identified in the permit application or the NOI as being part of the total routine treatment process. If the permittee no longer wants to utilize a specific treatment process as part of the total routine treatment process, the permittee may amend its permit application or NOI describing the changes in the total treatment process. The sentence will not be deleted.

48. Com.: Part IX.F. (now Part 9.6) Upset Conditions (page 73). A commenter requested that the definition of upset be included either in definitions portion of the permit or in Part IX.F. Also, the cross-references in Parts IX.F.2.c. and d. (now Parts 9.6.2.3 and 4) were incorrect.

Res.: The definition of upset was inadvertently omitted from the draft permit. The definition has been added to the definition portion of the permit, Part XI (now Part 11). The cross-references have been corrected.

49. Com.: Part X.A. (now Part 10.1) Planned Changes. A commenter noted that the following regulatory language may need to be included in the General Permit per 40 CFR 122.41(l)(1)(iii):

“The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;”

Res.: The wording was added to Part X.A (now Part 10.1) as a new Part 10.1.3.

50. Com.: Part X.I. (now Part 10.9) Availability of Reports (page 75). A Commenter requested that the reference to data needed to determine compliance with state regulations be deleted because this is a federal permit for a program that has not been delegated to the State. The commenter also asked why all the reports will be available at the State for public inspection under the terms of this draft general permit?

Res.: After reviewing the wording of Part X.I. (now part 10.9), it was decided to change the wording to the following: “Availability of Reports. Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Director. As required by the Act, permit applications, permits, and all data necessary to determine compliance with the permit conditions or applicable Federal sewage sludge regulations shall not be considered confidential.”

The permits will continue to require copies of reports be submitted to the State or applicable Tribe, but the permits will not mention the reports being available for inspection at the State or Tribal offices. Although EPA cannot require the State or applicable Tribe to make copies of the reports available for inspection, it is hoped that they will do so because it may be significantly easier for people to visit the office of the State or applicable Tribe than to come to Denver.

51. Com.: Part X.J. (now Part 10.10) Oil and Hazardous Substance Liability. Commenter stated that “There is no liability if there is no “discharge” as defined under section 311(a)(2) of the Act. If there is a discharge in compliance with an NPDES permit, then there is no “discharge” that would trigger section 311 liability.” The commenter requested that the following sentence be added at the end of the section: “A discharge in compliance with the permit is not a discharge for purposes of Section 311 of the Act.”

Res.: The permits do not authorize a discharge. EPA believes that any incident involving oil and/or hazardous substances should be evaluated on a case-by-case basis in terms of the applicable regulations. The sentence will not be added to Part X.J. (now Part 10.10).

52. Com.: Part X.K. (now Part 10.11) Property Rights. A commenter noted that the language of this part goes beyond the actual language of the “conditions applicable to all permits” regulation (40 CFR § 122.41(g)). Also, compliance with the permit should be available as an affirmative defense in any tort litigation. Recommended that deleting the last half of the sentence starting with “nor does it....”

Res.: The language in Part X.K. (now Part 10.11) is based on 40 CFR 122.5(b) & (c) and will not be changed.

53. Com.: Part X.O. (now Part 10.15) Reopener Provision (page 76). A commenter noted that this permit condition seems ungrammatical, or perhaps, not properly cloned from another source. The commenter recommended wording changes.

Res.: The wording of Part X.O. (now Part 10.15) has been changed to include some of the recommended changes and to more accurately paraphrase 40 CFR 122.44(c)(4).

54. Com.: Part XI. (now Part 11) Definitions. A commenter recommended adding definitions for “facility”, “landfilling of sewage sludge”, “sewage sludge bodies”, “surface disposal of sewage sludge”, and “treat or treatment of sewage sludge”.

Res.: Definitions for those terms have been added to Part XI. (now Part 11).

55. Com.: Part XI. (now Part 11) Definition of “Contaminate an aquifer”. A commenter recommended that the definition should be corrected by changing 40 CFR 141.11 to 40 CFR 141.62(b) in accordance with the (revised) 40 CFR 503.21(c).

Res.: The correction was made.

56. Com.: Definition of “Grit and screenings” (page 79). A commenter recommended deleting “and shall be disposed of according to 40 CFR 258” from the last part of the definition.

Res.: The last part of the definition, “and shall be disposed of according to 40 CFR Part 258.” was deleted and the following note added: “(Note: The disposal of grit and screenings are not regulated under this permit. They should be disposed of in accordance with applicable State (or Tribal, if applicable) and local regulations.)”

57. Com.: Part XI (now Part 11) PFRP or Processes to Further Reduce Pathogens. A commenter noted that this Part should refer to Appendix B (Part B.) of 40 CFR Part 503 instead of referring to 40 CFR Part 257, Appendix II.

Res.: The change was made.

58. Com.: Part XI (now Part 11) Pollutant limit. A commenter requested that the definition of “pollutant limit” in 40 CFR § 503.9(u) be used.

Res.: The change was made. The wording that was used in the permit was intended to provide clarification of the definition given at 40 CFR 503.9(u). However, the use of maximum might have caused confusion when the limitation involved 30-day averages. The reference to microorganisms that was used in the definition in the draft permit was unnecessary because the definition in the regulation refers to the amount of pollutant per unit amount of sewage sludge.

59. Com.: Part XI. (now Part 11) Definition of “Sewage sludge”. A commenter recommended that the wording “These must be disposed of in accordance with 40 CFR Part 258.” should be deleted from the end of definition as it is not appropriate.

Res.: The last sentence has been deleted and the following note added “(Note: The disposal of grit and screenings are not regulated under this permit. They should be disposed of in accordance with applicable State (or Tribal, if applicable) and local regulations.)”

60. Com.: Part XII. (now Part 12) Approved Methods for the Analysis of Sewage Sludge (40 CFR 503). A commenter noted that digestion method 3050 in SW-846 has reportedly been superseded by other methods and requested that methods 3050B and 3052 in SW-846 be authorized. In addition, it was requested that methods 6010B and 6020 in SW-846 for metals be specifically approved.

Another commenter requested organic nitrogen be expressed as “Value calculated: TKN minus NH3”.

Res.: The table of approved methods has been updated to reflect changes in analytical procedures. Several changes were made, including the following:

The following footnote, b/, was added following the analytical procedure for all metals, except for mercury:

All samples must be digested using SW-846 Method 3050B (using equivalent to 1 gram dry weight) prior to analysis by any of the procedures indicated. Methods 3051 or 3052 may be used only with permission of the permit issuing authority. The AA direct Aspiration analyses are applicable at moderate concentration levels in clean complex matrix systems. AA Furnace methods can increase sensitivity if matrix effects are not severe. Inductively Coupled Plasma (ICP) methods are applicable over a broad linear range and are especially sensitive for refractory elements. Detection limits for AA Furnace methods are generally lower than for ICP methods.

Please note that methods 3051 and 3052 may be used only with permission of the permit issuing authority.

SW-846 Method 6010 has been replaced with SW-846 Method 6010B. Also, SW-846 Method 6020 has been added for all metals except for mercury. Some changes were made for specific metals, but they are not listed here.

The list of parameters has been increased by adding *Salmonella* bacteria, helminth ova, enteric viruses, TCLP, and paint filter test.

Footnote a/ was added giving the references for the specified analytical methods. For “Standard Methods” it was specified that the 18th edition is the specified reference.

Under analysis method for organic nitrogen “N/A” was changed to “Value calculated: TKN minus NH₃”.